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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/055,984	04/07/1998	TAE WOON KIM	K-018	4692

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FLESHNER & KIM, LLP
P.O. BOX 221200
CHANTILLY, VA 20153

EXAMINER

NGUYEN, TOAN D

ART UNIT	PAPER NUMBER
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2665

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DATE MAILED: 02/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/055,984

Applicant(s)

KIM, TAE WOON

Examiner

Toan D Nguyen

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/2/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13, 14, 16, 17, 21-36 and 38-49 is/are rejected.
- 7) ☒ Claim(s) 12, 15, 18-20, 23-26 and 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2665

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 11, 27, 31, 38-41 and 46 are rejected under U.S.C. 102(b) as being anticipated by Billstrom et al. (U.S. Patent 5,590,133).

For claims 1, 3, 27 and 38-41, Billstrom et al. disclose apparatuses and mobile stations for providing packet data communication in digital TDMA cellular systems, comprising:

a plurality of mobile stations (figure 1, col. 6 lines 36-40);

a plurality of base stations and base station controllers for transferring a signal transmitted from said mobile stations and signal transmitted to said mobile stations in a predetermined service area (col. 4 lines 23-36 and col. 6 lines 36-40);

a mobile switching center for detecting a service option (figure 1, col. 6 lines 47-50) included in the signal transmitted from the base stations and base station controllers and for executing a circuit data service or a packet data service according to the detected service option (figure 1, col. 6 lines 34-50); and

at least one mobile data network interworking unit for establishing a traffic channel of a mobile data path and a call between a calling party mobile station and a called party mobile

station when said mobile switching center performs the circuit data service wherein first and second data paths are established between the mobile switching center (figure 1, col. 6 lines 47-65) and the least one mobile data network interworking unit (figure 1, col. 7 lines 29-57).

For claims 2, 11, 31 and 46, Billstrom et al. disclose mobile switching center comprises:

a mobile connection control module for detecting a service option include in the signal transmitted from base station and base station controllers and for generating a switching signal controlling an interface connection (figure 1, col. 6 lines 34-59);

a mobile data path connection control module for controlling the connection to a mobile network data path according to the output signal of said mobile connection control module (figure 10, col. 17 lines 53 to col. 18 line 27);

a public network data path connection control module for controlling the connection to a public network data path according to the output signal of said mobile data network interworking unit (col. 7 lines 40-44);

a trunk connection control module for transmitting an output signal of said public network data path connection control module or said mobile network data path connection control module to a public switched telephone network or to a second mobile switching center according to the output signal mobile data path control module or said public network data path connection control module (figure 1, col. 6 lines 47-50).

For claim 4, Billstrom et al. disclose data terminal includes one of notebook, personal digital assistant, laptop, palm top, portable or small computer (col. 24 lines 40-42).

For claim 5, Billstrom et al. disclose each of said mobile stations includes a protocol stack for a circuit data and a call processing module for processing a packet data (col. 24 line 30 to col. 25 line 30).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6, 9-10, 13-14, 16-17, 21-22, 28-30, 32, 35-36, 44-45 and 47-49 are rejected under 35 U.S.C.103 (a) as being unpatentable over Billstrom et al. (U. S. Patent 5,590,133) in view of Essigmann (U.S. Patent 5,850391).

For claims 6, 28-29, 32, 44-45 and 47-49, Billstrom et al. disclose mobile data network interworking unit includes:

a data path connection section for forming a path connection between said mobile switching center and mobile data network interworking unit (figure 14, col. 21 line 27 to col. 24 line 27).

However, Billstrom et al. do not disclose:

a main processing section forming a traffic channel of a mobile data path between a calling party mobile station and a called party mobile station to execute a circuit data communication or a packet data communication according to a received signal from said data path connection section;

a circuit data processing section analyzing the signal transmitted from said calling party mobile station if the protocol between the calling party mobile station and the called party mobile station is normally executed when said main processing section performs the circuit data service and then transmitting said called party identification number to said main processing section; and a switching section selectively switching the connection between said circuit data processing section and said data path connection section according to the control signal of said main processing.

In an analogous art, Essigmann discloses:

a main processing section forming a traffic channel of a mobile data path between a calling party mobile station and a called party mobile station to execute a circuit data communication or a packet data communication according to a received signal from said data path connection section (col. 7 lines 52-54);

a circuit data processing section analyzing the signal transmitted from said calling party mobile station if the protocol between the calling party mobile station and the called party mobile station is normally executed when said main processing section performs the circuit data service and then transmitting said called party identification number to said main processing section (col. 7 line 64 to col. 8 line 1); and

a switching section selectively switching the connection between said circuit data processing section and said data path connection section according to the control signal of said main processing (col. 7 lines 55-59). Essigmann discloses further a CDMA mobile data communication system (col. 4 line 40 as set forth in claims 9 and 30); one modem (col. 6 line 27 as set forth in claim 28).

Art Unit: 2665

One skilled in the art would have recognized mobile data network interworking unit to use the system of Essigmann in the system of Billstrom et al. Therefore it would have been obvious to one of ordinary skill in the art at the time invention, to use the mobile data network interworking unit as taught by Essigmann in Billstrom et al.'s system with the motivation being to provide the requested mobile services (col. 9 lines 26-30).

For claims 10, 13-14, 16-17, 21-22, 35 and 36, Billstrom et al. disclose apparatuses and mobile stations for providing packet data communication in digital TDMA cellular systems, comprising:

inputting an identification number of a called party mobile station (figure 14, col. 22 lines 22-24);

establishing a first call from a calling party mobile station to a mobile data network interworking unit and then establishing a first traffic channel (col. 21 lines 35-47);

calling the called party mobile station at said mobile data network interworking unit (col. 21 line 35 to col. 22 line 29);

establishing a second call from said called party mobile station to said mobile data network interworking unit when a data response comes from said called party mobile station and then establishing a second traffic channel after said mobile data path connection module informs said public network data path connection control module of the normal state of a first data path between a mobile switching center and the mobile data network interworking unit (col. 22 line 11 to col. 24 line 27);

establishing a call between said mobile switching center and the mobile data network interworking unit through a second data path (col. 22 line 11 col. 24 line 27).

Art Unit: 2665

However, Billstrom et al. do not disclose connecting said first and second traffic channels through at least one modem of the interworking unit to perform circuit data service. In an analogous art, Essigmann discloses connecting said first and second traffic channels through at least one modem of the interworking unit to perform circuit data service (col. 8 line 25).

One skilled in the art would have recognized a modem of the interworking unit to perform circuit data service to use the teachings of Essigmann in the system of Billstrom et al. Therefore it would have been obvious to one of ordinary skill in the art at the time invention, to use the modem of the interworking unit to perform circuit data service as taught by Essigmann in Billstrom et al.'s system with the motivation being to provide with appropriate parameters and settings as indicated by extracted IWF control data (col. 8 lines 9-12).

Objection To Claims, Allowable Subject Matter

5. Claims 7-8, 12, 15, 18-20, 23-26, 33-34, 37 and 42-43 are objected to as being dependent upon a rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

Response To Argument

6. Applicant's argument filed on December 02, 2003 have been fully considered, but are moot in view of the new ground(s) of rejection.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D Nguyen whose telephone number is 703-305-0140. The examiner can normally be reached on Monday- Friday (7:00AM-4:30PM).

Art Unit: 2665

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 703-308-6602. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.

Toan D. Nguyen

Toan D. Nguyen